

VNWA General Release 36.7.x - VIDEO Support & Change of default IF Frequency

Since May 2017 VNWA General Release 36.7.2 is available for download from the SDR-Kits home page: <u>http://www.sdr-kits.net/vnwasoftware/</u>

This new General VNWA release offers a number of enhancements and bug fixes compared to the previous VNWA release 36.6.x

1. VNWA VIDEO SUPPORT

To support the introduction of the new VNWA software, three Videos have been produced by Kurt Poulsen OZ7OU. Viewing of these videos is particularly recommended for new VNWA users, however also existing VNWA users may benefit from viewing these videos. Thanks to Kurt for producing these Videos!

First time Installations VNWA software – duration 7min 4 sec	https://youtu.be/TOMj4jaUSKs
First time start VNWA Software – duration 11 min 38 sec	https://youtu.be/cuLjsJYpODc
First time VNWA calibration - duration 15 min 34 sec	https://youtu.be/gATrqw4lKT8

As backup, these videos may also be downloaded from Kurt's VNWA link: <u>http://www.hamcom.dk/VNWA</u>

2. AUDIO TEST WAVE FORM – Default IF 12 kHz - Triangular waveform during Audio Test

From release 36.7.0 the default IF Frequency has changed to 12 kHz from 1.2 kHz to allow for shorter sampling time to 0.16ms from 0.96ms, hence providing faster Frequency scans. The impact of this change is that when performing Audio tests as shown in the VNWA "Getting Started Manual" in paragraphs 3.2.11 to 3.2.14 and paragraphs 3.4.14 to 3.4.17 a triangular waveform is now produced as shown in the picture below instead of a sinewave. This is normal behaviour and does **not** indicate a problem with your VNWA.



If you prefer, you can change the IF back to 1200Hz, 1.2kHz by selecting Audio Tab and changing Samples/IF Period to **10** and the number of **Presamples** and **Postsamples** each to **3** as shown below. This will increase the Minimum Sampling Time to 0.96ms but will produce the familiar sinewaves when performing the Audio Test.

🛒 PC and Instrument Hardware Related Setup	×		
USB Settings Audio Settings Audio Level Aux. Audio Level Instrument Settings Misc. Settings			
Audio Capture Device Line (4- USB AUDIO CODEC) ADC Resolution 8 Bit 16 Bit 24 Bit Test Audio 48000 Hz Min=-12207 	Misc Audio Settings Audio Buffer Length in Samples Samples / IF Period 10 ** => IF = 1199.99 Hz # Presamples 3 ** Presamples ** Presamples ** Optimized Sample Rate Calibrate Sample Rate 47999.7 ignore overload •		
Auxiliary Audio Capture Device available	Reference = Left Channel 💌 restart on no sync		
Auxiliary Audio Capture Device	Auxiliary Audio Settings		
Line (3- USB AUDIO CODEC)	Aux. Audio Channels measure THRU		
ADC Resolution C 8 Bit C 16 Bit C 24 Bit	Main Audio Channels measure REFLECT Measd. Sample Rate = 47999.8		
Min=-11271 Max=11273	Aux. Reference = Right Channel		
Auto-Setup Audio Devices check USB codecs only			

The default setting for a 12kHz IF is show below for completeness.

Misc Audio Settings Audio Buffer Length in S	Samples	3000
Samples / IF Period	1 ×4	=> IF = 11999.93 Hz
# Presamples	2	=> Minimum Sampling Time =
# Postsamples	2	0.17 ms
Calibrate Sample Rate		
Measd. Sample Rate =	47999.7	ignore overload 🔹
Reference = Left Char	nel 🔻	restart on no sync 🔹

End of Bulletin.